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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/869,184	06/20/2001	Marcus Menden	E02P01US	2261
30008	7590	02/17/2004	EXAMINER	
GUDRUN E. HUCKETT LONSSTR. 53 WUPPERTAL, 42289 GERMANY			TON, ANABEL	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 02/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 09/869,184	<b>Applicant(s)</b> MENDEN, MARCUS	
	<b>Examiner</b> Anabel M Ton	<b>Art Unit</b> 2875	

-- Th MAILING DATE of this communication appears on the cover sheet with th correspond nc address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on 25 November 2003.

2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) 81-110 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 81-110 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All    b) ☐ Some \* c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 81-110 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/39319.

3. WO 99/39319 discloses the claimed invention except for the recitation of the measurements as recited for the printed circuit board and the distance between the LED's. WO 99/39319 recites printed circuit boards (fig. 13, as seen in view F, B-B, C-C and D-D, there are a multiple amount of circuit boards attached by means 1402) each provided with LEDS; cables for connecting the printed circuit board to one another and/or for connecting the printed circuit boards to a voltage source: attachment elements for attaching the printed circuit boards to a desired Location; and wherein the printed circuit board comprise at least one printed circuit board having three LEDS arranged along a first straight line (pp 16, lines 15-25, pp 17 lines 25-29, figs 1d, 17-17d)

- With regards to a spacing between two neighboring LEDS of the three LEDS along the first straight Line is approximately 14 to 20 mm, respectively, it would have been obvious to one of ordinary skill in the art at the time the invention was made to space a selected amount of LED's (in this case 2 of 3) to 14-20 mm

between each other since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum of workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 223.

- With regards to the at least one printed circuit board having three LEDS 50 mm to 60 mm long, is approximately 8 mm to 16 mm wide, and approximately 1 mm to 3 mm thick it would have been obvious to one of ordinary skill in the art at the time the invention was made to have a printed circuit board used in the invention with the abovementioned measurements since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum of workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 223.
- The printed circuit board comprises at least one printed circuit board having six LEDS arranged along a second straight line (figs 17a-17d, clearly shows a printed circuit board having 6 LEDS arranged along a second straight line in combination with the first abovementioned set of leds). With regards to a spacing between two neighboring LEDS of the six LEDS along the second straight line is approximately 14 to 20 mm, respectively, it would have been obvious to one of ordinary skill in the art at the time the invention was made to space a selected amount of LED's to 14-20 mm between each other since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum of workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 223.

- With regards to the printed circuit board comprises at least one printed circuit board having nine LEDS arranged alternating along two third straight lines in a zigzag shape, wherein a spacing between the two third straight lines is approximately 25 to 35 mm and wherein a spacing between two neighboring LEDS of the nine LEDS arranged together on one of the two third straight lines is approximately 30 to 40 mm, respectively, the Filipovsky reference in figures 17a-17 discloses at least one printed circuit board with 9 LED's arranged alternating along two third straight lines in a zig zag shape (the zig zag shape can be located at any desired LED starting point in the "A" and followed to form a zig zag shape). With regards to the spacing between the LEDS, it would have been obvious to one of ordinary skill in the art at the time the invention was made to space a selected amount of LED's between each other to the abovementioned measurements since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum of workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 223.
- The LEDS are chip-on-board LEDS.
- The printed circuit boards each have at least two connecting points, each with a positive lead and a negative lead for current, wherein the cables are connected by a standardized plug to the connecting points, wherein wiring of the LEDS on each one of the printed circuit boards is such that, when one of the LEDS fails, current supply to the printed circuit boards connected in series downstream is not affected (figs 1-4a, 6a).

- The connecting points and the plugs are embodied such that the plug connected to the connecting points and the plug protects the positive and negative leads against moisture.
- At least one transformer for transforming a mains voltage to an operating voltage of the LEDS (figs 1a-7).
- With regards to the LEDS having an irradiation angle of more than 150 degrees, preferably 175° to 180°, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an LED in a lighting display device with the above mentioned irradiation angle since it is old and well known in the art to use such an LED in a display device to provide a lighting device with a greater illuminated area range (see cited prior art in previous action Ando et al)
- The printed circuit board comprise at least one protective resistor configured to protect the LEDS, (Figs 1-7);
- The attachment elements each have a flat side and a self-adhesive film provided on the flat side (pp 16, lines 15-25, pp 17 lines 25-29);
- Wherein the attachment elements have at least one bearing surface for receiving one of the printed circuit boards and a mounting element which latches to the printed circuit board and presses the printed circuit board against the bearing surface (pp 16, lines 15-25, pp 17 lines 25-29);

***Response to Arguments***

4. Applicant's arguments filed 11/25/03 have been fully considered but they are not persuasive. Applicant argues that the instant invention differs from the prior art in that it solves a different problem, mainly, providing a universal illumination system for hollow bodies, which is simple in handling so that a layperson may use it and that individually the reference could not possibly teach the instant invention. Applicant also argues that the Filipovsky reference and the Ando et al reference cannot possibly anticipated the invention. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In response to applicant's argument that Filipovsky and Ando et al is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Filipovsky teaches an LED illuminated sign assembly and Ando et al teaches an LED assembly that provides LEDS with an illumination range of 180 degrees. The combination of teachings would provide the LED display device of Filipovsky with an LED as taught by Ando et al with an illumination range of 180 degrees, since as also taught by Ando et al such an LED is old and well known for use in display devices. Applicant argues that Filipovsky does not teach a system of

combinable circuit boards having different LED patterns, applicant is advised to look at figure 13 in it's entirety, as seen in view F, B-B, C-C and D-D, there are a multiple amount of circuit boards attached by means 1402), the LEDs having different patterns provided by 1328 and 1326.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anabel M Ton whose telephone number is (571) 272-2382. The examiner can normally be reached on 08:00-16:30.

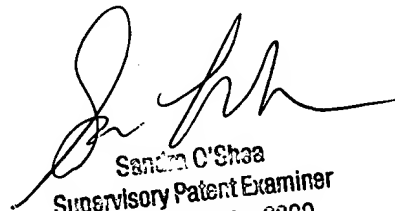


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anabel M Ton  
Examiner  
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AMT



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Supervisory Patent Examiner  
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